510(k) Summary Chesapeake Spinal System K2M, Inc.

This safety and effectiveness summary for the Aleutian IBF System is provided as required per Section 513(i)(3) of the Food, Drug and Cosmetic Act.

1. Submitter:

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Contact Person:

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MAR ~ 5 2010

Date Prepared:

January 28, 2010

2. Tradename:

Chesapeake Spinal System

Common Name:

Intervertebral Body Fusion Device

Classification Name:

Intervertebral Fusion Device (Product Code: MAX)

Spinal Intervertebral Body Fixation Orthosis (Product Code: MQP)

Regulation Number: 888.3080

3. Description of the device:

The Chesapeake Spinal System consists of PEEK spacers and titanium bone screws for intervertebral body fusion, without the need for supplementary fixation. The spacers are hollow tube structures that can be packed with bone graft and allow for passage of screws for fixation to the vertebral body. Multiple sizes of implants are available to accommodate anatomical variations.

Materials: The spacers are manufactured from Medical Grade PEEK (Polyetheretherketone) OPTIMA[®]
LT1 (Invibio™) per ISO 10993-1 USP Class VI and ASTM F2026. Tantalum beads /rods to be
Grade UNS R05200, UNS R05400 according to ASTM F560. The screws are fabricated from
Ti6Al4V per ASTM 1472.

Function: The system functions as an intervertebral body fusion device to provide support and stabilization of the lumbar segments of the spine.

4. Intended Use:

The Chesapeake Spinal System is intended to be used with the bone screws provided and requires no additional supplementary fixation. The Chesapeake implants are intended for spinal fusion procedures in skeletally mature patients who have had six months of non-operative treatment.

When used as intervertebral body fusion devices, the implants are indicated for use at either one level or two contiguous levels in the lumbar spine, from L2 to S1, for the treatment of degenerative disc disease (DDD) with up to Grade 1 spondylolisthesis. DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies. This device is intended to be used with autogenous bone graft.

When used as vertebral body replacement devices the Chesapeake implants are indicated for use in the thoracolumbar spine (T1 to L5) for partial replacement (i.e., partial vertebrectomy) of a diseased vertebral body, resected or excised for the treatment of tumors or trauma/fracture in order to achieve anterior decompression of the spinal cord and neural tissues, and to restore the height of a collapsed vertebral body. The Chesapeake implants are designed to restore the biomechanical integrity of the anterior, middle, and posterior spinal column even in the absence of fusion for a prolonged period. The interior of the spacer may be packed with allograft or autograft.

5. Predicate or legally marketed devices which are substantially equivalent:

Documentation was provided which demonstrated that the subject Chesapeake Spinal System components are substantially equivalent to the K2M Aleutian Interbody Spacer Systems (K051454, K082698), Surgicraft Stalif System (K073109), Synthes Synfix (K062083, K072253), Spinal Elements (K083475), and Biomet Solitaire (K081501).

6. Comparison of the technological characteristics of the device to predicate and legally marketed devices:

There are no significant differences between the Chesapeake Spinal System and other systems currently being marketed which would adversely affect the use of the product. It is substantially equivalent to these other devices in design, function, material and intended use.



Food and Drug Administration 10903 New Hampshire Avenue Document Control Room W-066-0609 Silver Spring, MD 20993-0002

K2M, Inc. % Richard Woods 751 Miller Drive SE, Suite F1 Leesburg, VA 20175

MAR - 5 2010

Re: K092211

Trade/Device Name: Chesapeake Spinal System

Regulation Number: 21 CFR 888.3080

Regulation Name: Intervertebral Body Fusion Device

Regulatory Class: Class II Product Code: MAX, MQP Dated: January 29, 2010 Received: February 1, 2010

Dear Mr. Woods:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

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forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Mark N. Melkerson

Director

Division of Surgical, Orthopedic and Restorative Devices Office of Device Evaluation Center for Devices and Radiological Health

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Enclosure

510(k) Number (if known): 4092211

<u>Device Name</u>: Chesap

Chesapeake Spinal System

Indications For Use:

The Chesapeake Spinal System is intended to be used with the bone screws provided and requires no additional supplementary fixation. The Chesapeake implants are intended for spinal fusion procedures in skeletally mature patients who have had six months of non-operative treatment.

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Prescription use X	OR	Over-the-counter use
		(PER 21 CFR 801.109)

PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of Surgical, Orthopedic,

and Restorative Devices

510(k) Number K092211